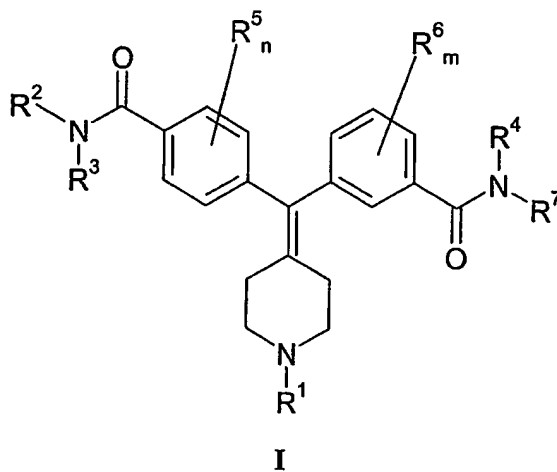


**What is claimed is :**

1. A compound of formula I, a pharmaceutically acceptable salt thereof, diastereomers, enantiomers, or mixtures thereof:



wherein

- $R^1$  is hydrogen,  $C_{1-6}$ alkyl- $O-C(=O)-$ ,  $C_{1-6}$ alkyl, substituted  $C_{1-6}$ alkyl,  $C_{3-6}$ cycloalkyl, and substituted  $C_{3-6}$ cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted arylalkyl or optionally substituted heteroarylalkyl;
- $n$  is 0, 1 or 2;  $m$  is 0, 1, or 2;
- $R^2$ ,  $R^3$  and  $R^4$  are, independently, selected from hydrogen,  $C_{1-6}$ alkyl, substituted  $C_{1-6}$ alkyl,  $C_{3-6}$ cycloalkyl, and substituted  $C_{3-6}$ cycloalkyl;
- $R^5$  and  $R^6$  are, independently, selected from  $-R$ ,  $-NO_2$ ,  $-OR$ ,  $-Cl$ ,  $-Br$ ,  $-I$ ,  $-F$ ,  $-CF_3$ ,  $-C(=O)R$ ,  $-C(=O)OH$ ,  $-NH_2$ ,  $-SH$ ,  $-NHR$ ,  $-NR_2$ ,  $-SR$ ,  $-SO_3H$ ,  $-SO_2R$ ,  $-S(=O)R$ ,  $-CN$ ,  $-OH$ ,  $-C(=O)OR$ ,  $-C(=O)NR_2$ ,  $-NRC(=O)R$ , and  $-NRC(=O)-OR$ , wherein  $R$  is, independently, a hydrogen or  $C_{1-6}$ alkyl; and
- $R^7$  is selected from  $C_{1-6}$ alkyl, substituted  $C_{1-6}$ alkyl,  $C_{3-6}$ cycloalkyl, and substituted  $C_{3-6}$ cycloalkyl, optionally substituted  $C_{6-10}$ aryl, optionally substituted  $C_{3-9}$ heteroaryl, optionally substituted  $C_{6-10}$ aryl- $C_{1-6}$ alkyl, and optionally substituted  $C_{3-9}$ heteroaryl- $C_{1-6}$ alkyl; or  $R^4$  and  $R^7$  together with nitrogen connected thereto form a portion of a  $C_{3-6}$ heterocycle ring.

2. A compound according to claim 1,  
wherein R<sup>1</sup> is hydrogen, C<sub>1-6</sub>alkyl-O-C(=O)-, C<sub>1-6</sub>alkyl, substituted C<sub>1-6</sub>alkyl,  
C<sub>3-6</sub>cycloalkyl, and substituted C<sub>3-6</sub>cycloalkyl;  
R<sup>2</sup> and R<sup>3</sup> are, independently, C<sub>1-3</sub>alkyl or halogenated C<sub>1-3</sub>alkyl;  
5 R<sup>4</sup> is hydrogen;  
R<sup>7</sup> is selected from optionally substituted C<sub>6-10</sub>aryl, optionally substituted  
C<sub>3-9</sub>heteroaryl, optionally substituted C<sub>6-10</sub>aryl-C<sub>1-6</sub>alkyl, and optionally substituted  
C<sub>3-9</sub>heteroaryl-C<sub>1-6</sub>alkyl; and  
n and m are 0.
- 10 3. A compound according to claim 1,  
wherein R<sup>1</sup> is selected from hydrogen, C<sub>1-6</sub>alkyl-O-C(=O)-;  
R<sup>2</sup> and R<sup>3</sup> are ethyl;  
R<sup>4</sup> is hydrogen;  
15 R<sup>7</sup> is C<sub>6-10</sub>aryl or C<sub>6-10</sub>arylC<sub>1-3</sub>alkyl; and  
n and m are 0.
4. A compound according to claim 1, wherein  
R<sup>1</sup> is hydrogen;  
20 R<sup>2</sup> and R<sup>3</sup> are ethyl;  
R<sup>4</sup> is hydrogen;  
R<sup>7</sup> is phenyl, benzyl or phenethyl; and  
n and m are 0.
- 25 5. A compound selected from:  
4-[[3-(anilincarbonyl)phenyl](piperidin-4-ylidene)methyl]-N,N-  
diethylbenzamide;  
4-[{3-[(benzylamino)carbonyl]phenyl}(piperidin-4-ylidene)methyl]-N,N-  
30 diethylbenzamide;

4-[(3-{{[(2-phenethyl)amino]carbonyl}phenyl}(piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;

and pharmaceutically acceptable salts thereof.

5 6. A compound according to any one of claims 1-5 for use as a medicament.

7. The use of a compound according to any one of claims 1-5 in the manufacture of a medicament for the therapy of pain, anxiety or functional gastrointestinal disorders.

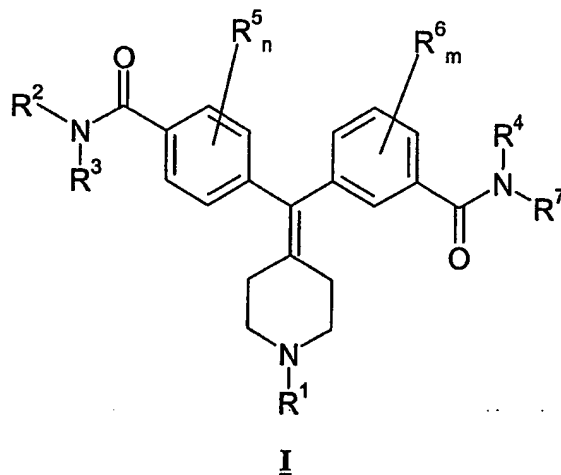
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8. A pharmaceutical composition comprising a compound according to any one of claims 1-5 and a pharmaceutically acceptable carrier.

9. A method for the therapy of pain in a warm-blooded animal, comprising the  
15 step of administering to said animal in need of such therapy a therapeutically effective amount of a compound according to any one of claims 1-5.

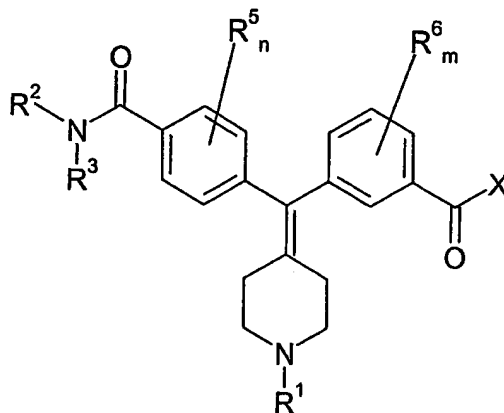
10. A method for the therapy of functional gastrointestinal disorders in a warm-blooded animal, comprising the step of administering to said animal in need of such  
20 therapy a therapeutically effective amount of a compound according to any one of claims 1-5.

11. A process for preparing a compound of formula I, comprising:



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reacting a compound of formula II with  $\text{HNR}^4\text{R}^7$ :



**II**

5 wherein

$\text{R}^1$  is hydrogen,  $\text{C}_{1-6}$ alkyl- $\text{O}-\text{C}(=\text{O})-$ ,  $\text{C}_{1-6}$ alkyl, substituted  $\text{C}_{1-6}$ alkyl,  $\text{C}_{3-6}$ cycloalkyl, and substituted  $\text{C}_{3-6}$ cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted arylalkyl or optionally substituted heteroarylalkyl;

10  $n$  is 0, 1 or 2;  $m$  is 0, 1, or 2;

$\text{X}$  is selected from  $-\text{OH}$ ,  $-\text{OR}^8$ ,  $-\text{O}-\text{C}(=\text{O})-\text{R}^8$ ,  $-\text{Cl}$ ,  $-\text{Br}$  and  $-\text{I}$ , wherein  $\text{R}^8$  is  $\text{C}_{1-6}$ alkyl;

$\text{R}^2$ ,  $\text{R}^3$  and  $\text{R}^4$  are, independently, selected from hydrogen,  $\text{C}_{1-6}$ alkyl, substituted  $\text{C}_{1-6}$ alkyl,  $\text{C}_{3-6}$ cycloalkyl, and substituted  $\text{C}_{3-6}$ cycloalkyl;

15  $\text{R}^5$  and  $\text{R}^6$  are, independently, selected from  $-\text{R}$ ,  $-\text{NO}_2$ ,  $-\text{OR}$ ,  $-\text{Cl}$ ,  $-\text{Br}$ ,  $-\text{I}$ ,  $-\text{F}$ ,  $-\text{CF}_3$ ,  $-\text{C}(=\text{O})\text{R}$ ,  $-\text{C}(=\text{O})\text{OH}$ ,  $-\text{NH}_2$ ,  $-\text{SH}$ ,  $-\text{NHR}$ ,  $-\text{NR}_2$ ,  $-\text{SR}$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{SO}_2\text{R}$ ,  $-\text{S}(=\text{O})\text{R}$ ,  $-\text{CN}$ ,  $-\text{OH}$ ,  $-\text{C}(=\text{O})\text{OR}$ ,  $-\text{C}(=\text{O})\text{NR}_2$ ,  $-\text{NRC}(=\text{O})\text{R}$ , and  $-\text{NRC}(=\text{O})-\text{OR}$ , wherein  $\text{R}$  is, independently, a hydrogen or  $\text{C}_{1-6}$ alkyl; and

20  $\text{R}^7$  is  $\text{C}_{1-6}$ alkyl, substituted  $\text{C}_{1-6}$ alkyl,  $\text{C}_{3-6}$ cycloalkyl, and substituted  $\text{C}_{3-6}$ cycloalkyl, optionally substituted  $\text{C}_{6-10}$ aryl, optionally substituted  $\text{C}_{3-9}$ heteroaryl, optionally substituted  $\text{C}_{6-10}$ aryl- $\text{C}_{1-6}$ alkyl, and optionally substituted  $\text{C}_{3-9}$ heteroaryl- $\text{C}_{1-6}$ alkyl; or  $\text{R}^4$  and  $\text{R}^7$  together with nitrogen connected thereto form a portion of a  $\text{C}_{3-6}$ heterocycle ring.

25 12. A process as claimed in claim 11,

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wherein X is -OH;

$R^1$  is  $C_{1-6}$ alkyl-O-C(=O)-;

$R^2$  and  $R^3$  are ethyl;

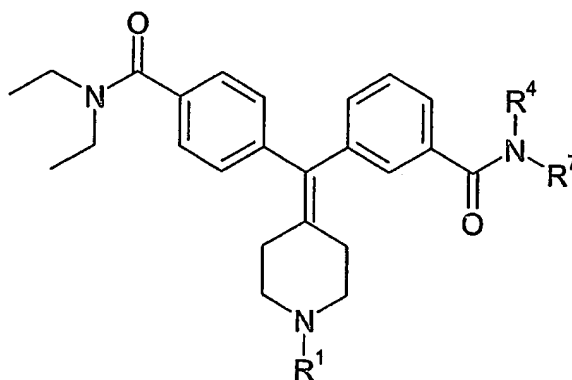
$R^4$  is hydrogen or methyl;

5  $R^7$  is phenyl, benzyl, phenethyl, cyclopentyl, cyclohexyl, cyclohexylmethyl, 2-chlorobenzyl, 2-fluorobenzyl, 1-(4-methylphenyl)ethyl, 4-methyl-1,3-thiazol-2-yl, 2,6-dimethylpyridin-3-yl, isobutyl, or 1-ethylpropyl; or  $R^4$  and  $R^7$  together form 1,5-pentylene or 1,4-butylene; and

n and m are 0.

10

13. A compound of formula IA, a pharmaceutically acceptable salt thereof, diastereomers thereof, enantiomers thereof, or mixtures thereof:

**IA**

15 wherein

$R^1$  is selected from hydrogen, and  $C_{1-6}$ alkyl-O-C(=O)-;

$R^4$  is selected from hydrogen,  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl, and  $C_{3-6}$ cycloalkyl, wherein said  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl, and  $C_{3-6}$ cycloalkyl are optionally substituted with one or more groups selected from -R, -NO<sub>2</sub>, -OR, -Cl, -Br, -I, -F, -CF<sub>3</sub>, -C(=O)R, -C(=O)OH, -NH<sub>2</sub>, -SH, -NHR, -NR<sub>2</sub>, -SR, -SO<sub>3</sub>H, -SO<sub>2</sub>R, -S(=O)R, -CN, -OH, -C(=O)OR, -C(=O)NR<sub>2</sub>, -NRC(=O)R, and -NRC(=O)-OR, wherein R is, independently, a hydrogen or  $C_{1-6}$ alkyl;

$R^7$  is selected from  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl,  $C_{3-6}$ cycloalkyl,  $C_{3-6}$ cycloalkyl- $C_{1-3}$ alkyl,  $C_{6-10}$ aryl,  $C_{6-10}$ aryl- $C_{1-3}$ alkyl,  $C_{3-6}$ heteroaryl, and  $C_{3-6}$ heteroaryl- $C_{1-3}$ alkyl, wherein said  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl,  $C_{3-6}$ cycloalkyl,

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C<sub>3-6</sub>cycloalkyl-C<sub>1-3</sub>alkyl, C<sub>6-10</sub>aryl, C<sub>6-10</sub>aryl-C<sub>1-3</sub>alkyl, C<sub>3-6</sub>heteroaryl, and C<sub>3-6</sub>heteroaryl-C<sub>1-3</sub>alkyl are optionally substituted with one or more groups selected from -R, -NO<sub>2</sub>, -OR, -Cl, -Br, -I, -F, -CF<sub>3</sub>, -C(=O)R, -C(=O)OH, -NH<sub>2</sub>, -SH, -NHR, -NR<sub>2</sub>, -SR, -SO<sub>3</sub>H, -SO<sub>2</sub>R, -S(=O)R, -CN, -OH, -C(=O)OR, -C(=O)NR<sub>2</sub>,  
5 -NRC(=O)R, and -NRC(=O)-OR, wherein R is, independently, a hydrogen or C<sub>1-6</sub>alkyl; or R<sup>4</sup> and R<sup>7</sup> together with nitrogen connected thereto form a portion of a C<sub>3-6</sub>heterocycle ring.

14. A compound according to claim 13, wherein R<sup>1</sup> is hydrogen;  
10 R<sup>4</sup> is selected from hydrogen and C<sub>1-6</sub>alkyl; and  
R<sup>7</sup> is selected from C<sub>3-6</sub>alkyl, C<sub>3-6</sub>cycloalkyl, C<sub>3-6</sub>cycloalkyl-C<sub>1-3</sub>alkyl, phenyl, phenyl-C<sub>1-3</sub>alkyl, and C<sub>3-6</sub>heteroaryl, wherein said R<sup>7</sup> is further optionally substituted with one or more groups selected from C<sub>1-6</sub>alkyl, halogenated C<sub>1-6</sub>alkyl, -NO<sub>2</sub>, -CF<sub>3</sub>, C<sub>1-6</sub>alkoxy, chloro, fluoro, bromo, and iodo.

15  
15. A compound according to claim 13, wherein R<sup>1</sup> is hydrogen;  
R<sup>4</sup> is selected from hydrogen and methyl; and  
R<sup>7</sup> is selected from C<sub>4-6</sub>alkyl, phenyl, benzyl, 2-phenylethyl, 1-phenylethyl, cyclopentyl, thiazolyl, pyridinyl and cyclohexyl, wherein R<sup>7</sup> is further optionally  
20 substituted with one or more groups selected from methyl, methoxy, chloro, and fluoro.

16. A compound according to claim 13, wherein R<sup>1</sup> is hydrogen; and  
R<sup>4</sup> and R<sup>7</sup> are directly linked to form a divalent C<sub>3-6</sub>alkylene, wherein said C<sub>3-6</sub>  
25 alkylene is optionally substituted with one or more groups selected from methyl, methoxy, chloro, and fluoro.

17. A compound according to claim 13, wherein R<sup>1</sup> is hydrogen; and  
R<sup>4</sup> and R<sup>7</sup> are directly linked to form 1,5-pentylene or 1,4-butylene.

30

18. A compound selected from:

- COMPOUND 1: 4-[[3-(anilincarbonyl)phenyl](piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- COMPOUND 2: 4-[[3-[(benzylamino)carbonyl]phenyl](piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- 5 COMPOUND 3: 4-[[3-[(2-phenylethyl)amino]carbonyl]phenyl](piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- COMPOUND 4: 4-[[3-[(cyclopentylamino)carbonyl]phenyl](piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- COMPOUND 5: 4-[[3-[(cyclohexylamino)carbonyl]phenyl](piperidin-4-ylidene)methyl]benzoic acid;
- 10 COMPOUND 6: 4-[[3-(cyclohexylacetyl)phenyl](piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- COMPOUND 7: 4-[[3-[(2-chlorobenzyl)amino]carbonyl]phenyl](piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- 15 COMPOUND 8: 4-[[3-[(2-fluorobenzyl)amino]carbonyl]phenyl](piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- COMPOUND 9: 4-[[3-({[(1*R*)-1-(4-methylphenyl)ethyl]amino}carbonyl)phenyl](piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- 20 COMPOUND 10: 4-[[3-({[(4-methyl-1,3-thiazol-2-yl)amino]carbonyl}phenyl)(piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- COMPOUND 11: 4-[[3-({[(2,6-dimethylpyridin-3-yl)amino]carbonyl}phenyl)(piperidin-4-ylidene)-*N,N*-diethylbenzamide;
- COMPOUND 12: 4-[[3-[(isobutylamino)carbonyl]phenyl](piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- 25 COMPOUND 13: 4-[[3-[(1-ethylpropyl)amino]carbonyl]phenyl](piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- COMPOUND 14: 4-[[3-([methyl(2-phenylethyl)amino]carbonyl]phenyl)(piperidin-4-ylidene)methyl]-*N,N*-diethylbenzamide;
- 30 COMPOUND 15: *N,N*-diethyl-4-[[3-(piperidin-1-ylcarbonyl)phenyl](piperidin-4-ylidene)methyl]benzamide;

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COMPOUND 16: N,N-diethyl-4-{piperidin-4-ylidene[3-(pyrrolidin-1-ylcarbonyl)phenyl]methyl}benzamide;  
and pharmaceutically acceptable salts thereof.

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